

**SAN LUIS OBISPO COUNTY**  
**Human Resources Department**

Geographic Information Systems Analyst I, II, III  
(Class Series)

**DEFINITION:**

Positions in this series perform a variety of professional, analytical and technical duties in the development, application and support of the County's Geographic Information Systems (GIS); collects, compiles and relates data from a variety of geographically referenced sources including maps, surveys, historical documents and global positioning systems; creates maps and other graphical reports for property assessment, land use planning, transportation systems, environmental information and other County and public purposes; performs other related duties as assigned.

Positions may be assigned to an operating department and/or provide system and program design activities in support of the countywide GIS.

**DISTINGUISHING CHARACTERISTICS:**

GIS Analyst I: This is the entry level class in the series. Under general supervision, incumbents' primary job function is in the application of the County's GIS, mapping and graphic communication programs; performs routine mapping and graphic communication assignments; assists in the publishing of reports and in the creation and maintenance of official maps, department documents and graphic exhibits.

GIS Analyst II: This is the journey level class in the series. Under direction incumbents perform more complex GIS analysis, create mapping applications and perform systems management tasks; collects, develops and maintains GIS data, cartographic map products and graphic communication assignments. This class is distinguished from the GIS Analyst I by the assignment of the full range of duties, more difficult and complex work assignments and a higher level of independence.

GIS Analyst III: This is the advanced journey level class in the series. Under direction, incumbents perform the most complex GIS analysis, graphic communication projects, create mapping applications and performs systems management tasks; assists the GIS Program Manager and/or Senior GIS Analyst; This class is distinguished from the GIS Analyst II by the assignment of the most difficult and complex work and the highest level of independence in the series and may be assigned as a leadworker over subordinate staff and provide input on work performance.

**REPRESENTATIVE DUTIES:**  
**ALL LEVELS**

(Not in order of importance)

- Provides GIS technical support, assistance and training to County staff on GIS data access and use.
- Coordinates projects and tasks with department staff; monitors progress and results.
- Creates graphic exhibits, department reports and maps.
- Develops GIS modeling and analyzes results derived from spatial databases and external tables using GIS software and other related mapping software and tools.
- Models map layers, performs spatial analysis, generates reports, and performs quality control procedures using GIS software.
- May conduct fieldwork to map, assess, and record spatial data using a Geographic Positioning System (GPS) unit as needed.
- Researches, collects, creates, updates and integrates information and data from various spatial and non-spatial sources.
- Researches and interprets parcel boundary and title information from recorded deeds, subdivision maps and engineering surveys.
- Assists the public in locating information related to property surveys, boundaries, easements, ownerships, roads, zoning and similar matters; answers fundamental inquiries related to mapping.
- Designs applications and utilities to automate GIS tasks and integrate new and existing systems.
- Provides high-quality cartographic maps for customers and for use in staff presentations.

In addition: GIS Analyst III

- May direct and review the work of others on as a project lead or as otherwise assigned.
- May assist the GIS Program Manager on enterprise GIS initiatives.
- Reviews work of others for compliance with established standards, procedures and practices consistent with County ordinances and State and Federal requirements.

**EMPLOYMENT STANDARDS:**

Knowledge of:

- Standard office equipment, computer applications and computer- aided design software
- GIS and cartographic principles, terminology, methods and programs
- Spatial and geographic data resources and geographic data analysis and modeling techniques
- Standards, procedures and practices of the use of GIS data in compliance with applicable County ordinances and State and Federal requirements
- Principles of database management related to GIS
- Map projections and coordinate systems
- Data collection techniques using Global Positioning Systems
- Project management methodologies and practices
- Conventional and internet publication practices

- Data dictionaries and metadata
- Principles of aerial imagery identification and interpretation
- Effective techniques of written and verbal communication
- Office procedures and policies

Ability to:

- Use GIS, web design and graphic communications programs
- Work with GIS system applications, environments and interfaces and related hardware
- Read and interpret complex GIS technical documentation and technical reports
- Design and prepare accurate, presentable cartographic maps graphic products, reports and documents
- Produce materials suitable for conventional and internet publication
- Perform GIS and computer-aided mapping analyses and modeling
- Make mathematic and database computations
- Follow written and verbal direction
- Estimate and complete projects in a timely manner
- Provide effective training to staff
- Maintain knowledge related to emerging technologies and adapt to changing technology and constraints
- Operate standard office equipment including a computer and assigned specialty software
- Work effectively and tactfully with other staff, public agencies, the general public and advisory committees Communicate effectively, both verbally and in writing
- Foster a spirit of teamwork and support when interacting with staff and others
- Review the work of others and provide input on staff performance
- Compile, organize and summarize information accurately in graphic and written form
- Learn, interpret, apply and explain departmental policies and procedures, rules, laws and regulations
- Work effectively in an environment that includes pressure to meet time sensitive deadlines and critical review of work product.
- Support and follow department policies, goals, guiding principles, and Mission-Vision-Values Statement

## **EDUCATION AND EXPERIENCE:**

GIS Analyst I: An Associate's degree in GIS, Cartography, Geography, Computer Science, Engineering, Planning, or other GIS related field OR 60 semester or 90 quarter units from an accredited college or university which includes coursework in a GIS related field. (Job-related experience may substitute for the required education on a year-for-year basis.)

GIS Analyst II: Either A: Bachelor's degree in GIS, Cartography, Geography, Computer Science, Engineering, Planning, or other GIS related field. OR B: An associate's degree or 60 semester units or 90 quarter units from an accredited college or university in any of the fields listed above and two years of experience related to geographic information systems or computer-aided

mapping. (Job-related experience may substitute for the required education on a year-for-year basis.)

GIS Analyst III: Either A: Bachelor's degree in GIS, Cartography, Geography, Computer Science, Engineering, Planning, or other GIS related field and two years of experience related to geographic information systems or computer-aided mapping. OR B: An associate's degree or 60 semester units or 90 quarter units from an accredited college or university in any of the fields listed above and four years of experience related to geographic information systems or computer-aided mapping. (Job-related experience may substitute for the required education on a year-for-year basis.)

#### LICENSES/CERTIFICATES:

Certain positions in this classification may require driving. When driving is an essential function of the position, a valid CALIFORNIA driver's license will be required at the time of appointment and must be maintained throughout employment.

#### OTHER CONDITIONS OF EMPLOYMENT:

Employees must be willing and able to respond to after-normal workday or irregular emergency requests on nights, weekends, and holidays.

This class specification generally describes the duties and responsibilities characteristic of the position(s) within this class. The duties of a particular position within a multi-position class may vary from the duties of other positions within the class. Accordingly, the essential duties of a particular position (whether it be a multi-position class or a single-position class) will be identified and used by medical examiners and hiring authorities in the selection process. This information will also be made available for review at the time of any recruitment for that position and at such other times as reasonably required.

#### SUBCLASS RECRUITMENT:

Recruitment for positions in this class series may be conducted according to the specialized qualifications of the position as determined by department management.